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Washington, DC 20037

EXAMINER

SANDOVAL, KRISTIN D

ART UNIT	PAPER NUMBER
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2132

MAIL DATE	DELIVERY MODE
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08/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/838,206

Applicant(s)

YOSHIDA ET AL.

Examiner

Kristin D. Sandoval

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14, 15, 17-26, 29, 30, 32, 33, 35, 36, 38, 39 and 41-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 15, 17-26, 29, 30, 32, 33, 35, 36, 38, 39 and 41-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/8/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-11, 14, 15, 17-26, 29, 30, 32, 33, 35, 36, 38, 39 and 41-47 are pending. Claims 12, 13, 16, 27-28, 31, 34, 37 and 40 are cancelled.

Response to Arguments

2. Applicant's arguments filed June 11, 2007, with regard to the 35 U.S.C. 112 rejection of claim 1, have been fully considered but they are not persuasive. Applicant argues that the limitation of, "the generated substitute information has a length within a range correctable by an error correction capability" limits the structure of the apparatus claims in claim 1. The examiner respectfully disagrees. It is unclear what "range" may be correctable by an error correction capability. A specific error correction capability is not named, thus a range cannot be ascertained by one of ordinary skill in the art from that aspect of the claim nor does the claims state a specific range in length that would be correctable by an error correction capability. Since one of ordinary skill in the art knows there are various correctable ranges and various error correction capabilities known in the art, the scope of the claim cannot be ascertained and does not further limit the structure of the apparatus.

3. Applicant's arguments with respect to claims 1-11, 14, 15, 17-26, 29, 30, 32, 33, 35, 36, 38, 39 and 41-47 have been considered but are not persuasive in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 8-11, 14, 15, 17-20, 25, 26, 32, 33, 35-36, 38-39 and 41-47 rejected under 35 U.S.C. 103(a) as being unpatentable over Osawa et al., U.S. Patent No. 5,930,367 in view of Carson et al., (Carson), U.S. Patent No. 6,715,122.

Regarding claims 1, 29, and 35, Osawa et al., U.S. Patent No. 5,930,367, substantially teaches an information recording device, medium, and method comprising generating substitute information by using identification information unique to a recording medium, substituting part of the recording information which is generated as a unit of error correction, with the generated substitute information and recording the generated substituted information in the medium corresponding to the identification information, wherein the generated substitute information is correctable by error correction, the substitute position can be changed and the generated substitute information is replaced in a plurality of the units of the error correction (4:30-5:17 wherein the parity bits that represent error correction represent recording information and the place or sector at which the substitute information is placed is the substitute position and despite the parity bits being in a fixed position, the place in which the substitution information is placed within the parity bits is not fixed since any portion of the parity bits may be replaced, 12:16-21 wherein manufacturer ID would be an ID unique to the recording medium, 5:18-47, since the substitute information can be substituted in a plurality of sectors).

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Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claims 2, 30, and 36, Osawa et al. further disclose encrypting the recording information, substituting part of the encrypted information with the generated substitute information and recording the key information and the generated substituted recording information in the medium (6:59-7:7, 5:1-5).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 3, Osawa et al. further disclose generating the substitute information including the key information (4:66-5:4 wherein the substitute information is the identification

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information and thus, since the information could be the cipher key, the substitute generator generates both the substitute information and the cipher key).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claims 8 and 25, Osawa et al. further disclose a device for adding a correction code for error correction to the recording information wherein the substituting device substitutes the generated substitute information for part of the added record information to generate the substitute recording information (4:47-65).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

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Regarding claims 9, Osawa et al. further disclose recording identification information (7:8-18).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 10, Osawa et al. further disclose the identification information recorded in advance and the substitute information generating device detects the recorded identification information to use it for the generation of the substitute information (6:12-36, 7:8-18).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 11, Osawa et al. further disclose varying a mode of substitution by using the identification information (6:64-7:7).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 14, Osawa et al. further disclose an information recording medium comprising an information recording region for recording the information which is generated as a unit of error correction, part of which is substituted with the substitute information, and identification recording region for recording the identification information wherein the generated substitution information is correctable by error correction and the substitute position of the part of the recording information is different from the substitute position of a part of other recording information (4:30-5:17 wherein the parity bits that represent error correction represent recording information and the place or sector at which the substitute information is placed is the substitute position and other recording medium are recorded on a different recording medium, therefore the position is different since its on a different recording medium, 12:16-21 wherein manufacturer ID would be an ID unique to the recording medium).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 15, Osawa et al. further disclose encryption of the recording information by using predetermined key information (9:53-11:23).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claims 17, 32, and 38, Osawa et al. further disclose a reproducing method comprising detecting the substituted recording information and identification information, and extracting the substitute information and identification information, comparing the identification information extracted from the substitute information with the detected identification

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information; and reproducing the recording information only if the extracted identification matches the detected information (7:19-9:52, wherein the place or sector at which the substitute information is placed is the substitute position and other recording medium are recorded on a different recording medium, therefore the position is different since its on a different recording medium).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claims 18, 33, and 39, Osawa et al. further disclose encryption of the recording information using a predetermined key information; the key information and the obtained substituted recording information are recorded in the information recording medium; detecting the key information; and decrypting the encrypted recording information obtained from the detected substituted recording information only if the extracted identification matches the detected information (7:19-9:52).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted

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data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 19, Osawa et al. further disclose the key information contained in the substitute information and recorded in the medium, and detected from the extracted substitute information (7:19-9:52).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 20, Osawa et al. further disclose encrypting the key information by using the identification information, and recording the encrypted key information in the medium; detecting the encrypted key information from the medium, and generating the key information through decryption of the detected encryption key information, and reproducing the record information only if the extracted identification information matches the detected information (7:19-9:52).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claim 26, Osawa et al. further disclose varying a mode of substitution by using the identification information, and extracting the substitute information the detected substituted recording information based on the mode of substitution (6:64-7:7).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

Regarding claims 41-47, Osawa et al. further disclose a recording position of the recording information is set in advance and is used in common between the information recording apparatus and an information reproducing apparatus (6:37-58 wherein the table of

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contents determines in advance where the recording information will go and the table of contents is used in both the recording and reproducing apparatus).

Osawa fails to disclose the substitution position being based on substitute information indicating the substitute position. However, Carson discloses substituting information based on a control signal that indicates appropriate times that correspond to the locations for the substituted data (6:45-54). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use a known technique such as substituting data in a certain location based on information indicating the substitution location information as taught by Carson, to improve the substitution method as claimed by Osawa to produce predictable results to one of ordinary skill in the art.

5. Claims 4-7 and 21-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Osawa et al., U.S. 5,930,367 in view of Carson et al., (Carson), U.S. Patent No. 6,715,122 as applied to claims 1 and 20 above and further in view of Matyas et al. 4,757,534.

Regarding claims 4-6, Matyas et al. further disclose encrypting the key information by using the identification information to generate encrypted key information, and performing a predetermined encrypting process to generate encrypted identification information (see column 6, lines 44-65; figure 3, items 26-30).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the invention of Matyas et al. with the inventions of Osawa et al. and Carson et al. in order to increase the copy protection capabilities since ensuring the media was played on a certain computer would in addition to a specific medium, would decrease the chances of the media being copied.

Regarding claim 7 and 22, Matyas et al. further disclose an encrypting process that uses a predetermined unidirectional encrypting function (see column 11, lines 26-64; column 12, lines 17-27). Note that the public key encryption system inherently includes a unidirectional encrypting function.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the invention of Matyas et al. with the inventions of Osawa et al. and Carson et al. in order to increase the copy protection capabilities since ensuring the media was played on a certain computer would in addition to a specific medium, would decrease the chances of the media being copied.

Regarding claim 21, Matyas et al. further disclose obtaining the encryption key information by using encrypted identification information from a predetermined encrypting process, and recording the encrypted key information in the medium (see column 6, lines 44-65; figure 3, items 26-30); and decrypting the detected key information by using the encrypted identification information obtained from the encrypting process (column 9, lines 4-22; column 11, line 65 - column 12, line 16).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the invention of Matyas et al. with the inventions of Osawa et al. and Carson et al. in order to increase the copy protection capabilities since ensuring the media was played on a certain computer would in addition to a specific medium, would decrease the chances of the media being copied.

Regarding claims 23 and 24, Matyas et al. further disclose generating the substitute information using the encrypted identification information obtained by the predetermined

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unidirectional encrypting process to the identification information (see abstract; column 4, line 58 - column 5, line 7; column 6, line 59-65; column 11, lines 26-64; column 12, lines 17-27; figures 2-4); extracting the encrypted identification information from the extracted substitute information, and decrypting the information by a corresponding decrypting process, and reproducing the record information only if the generated identification information matches the detected information (see column 7, line 67 - column 8, line 16; column 9, lines 4-22; column 11, line 65 - column 12, line 16; figures 8 and 9).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the invention of Matyas et al. with the inventions of Osawa et al. and Carson et al. in order to increase the copy protection capabilities since ensuring the media was played on a certain computer would in addition to a specific medium, would decrease the chances of the media being copied.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristin D. Sandoval whose telephone number is 571-272-7958. The examiner can normally be reached on Monday - Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kristin D Sandoval
Examiner
Art Unit 2132

KDS
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